Amendments to the Claims

This listing of the claims will replace all prior versions and listings of the claims.

Listing of Claims:

1-20. (canceled)

21. (currently amended) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of amino acid residues -20 to 242 of SEQ ID NO:2;

(b) a protein consisting of amino acid residues 1 to 242 of SEQ ID NO:2;

(c) a protein consisting of amino acid residues 4 to 63 of SEQ ID NO:2; and

(d) a protein consisting of amino acid residues 64 to 242 of SEQ ID NO:2;

~~(e) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:2; and~~

~~(f) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2~~.

22. (previously presented) The antibody or fragment thereof of claim 21 that specifically binds protein (a).

23. (previously presented) The antibody or fragment thereof of claim 21 that specifically binds protein (b).

24. (previously presented) The antibody or fragment thereof of claim 21 that specifically binds protein (c).

25. (previously presented) The antibody or fragment thereof of claim 21 that specifically binds protein (d).

26-27. (canceled)

28. (previously presented) The antibody or fragment thereof of claim 23 that specifically binds protein (c).

29. (previously presented) The antibody or fragment thereof of claim 23 wherein said protein bound by said antibody or fragment thereof is glycosylated.

30. (previously presented) The antibody or fragment thereof of claim 23 which is a human antibody.

31. (previously presented) The antibody or fragment thereof of claim 23 which is a polyclonal antibody.

32. (previously presented) The antibody or fragment thereof of claim 23 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a humanized antibody;

(c) a single chain antibody; and

(d) a Fab fragment.

33. (previously presented) The antibody or fragment thereof of claim 23 which is labeled.

34. (currently amended) The antibody or fragment thereof of claim 33 wherein the label is selected from the group consisting of:

(a) an enzyme;

(b) a fluorescent label; and

(c) a chemiluminescent label; ~~and~~

~~(d) a bioluminescent label~~.

35. (previously presented) The antibody or fragment thereof of claim 33 wherein the label is a radioisotope.

36. (previously presented) The antibody or fragment thereof of claim 35 wherein the radioisotope is selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{14}C;

(d) ^{35}S;

(e) ^{3}H;

(f) ^{111}In; and

(g) ^{99}mTc.

37. (previously presented) The antibody or fragment thereof of claim 33 wherein the label is biotin.

38. (previously presented) The antibody or fragment thereof of claim 23 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

39. (previously presented) The antibody or fragment thereof of claim 23 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

40. (previously presented) The antibody or fragment thereof of claim 23, wherein the antibody or fragment thereof enhances t-PALP biological activity.

41. (currently amended) The antibody or ~~portion~~ fragment thereof of claim 23 which is fused to a heterologous polypeptide.

42. (previously presented) The antibody of claim 23 which is attached to a solid support.

43. (previously presented) An isolated cell that produces the antibody or fragment thereof of claim 23.

44. (previously presented) A hybridoma that produces the antibody or fragment thereof of claim 23.

45. (withdrawn) A method of detecting a protein in a biological sample comprising:

(a) contacting the biological sample with the antibody or fragment thereof of claim 23; and

(b) detecting the protein in the biological sample.

46. (withdrawn) The method of claim 45 wherein the antibody or fragment thereof is a polyclonal antibody.

47. (currently amended) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

(a) a protein consisting of amino acid residues -20 to 242 of SEQ ID NO:2;

(b) a protein consisting of amino acid residues 1 to 242 of SEQ ID NO:2;

(c) a protein consisting of amino acid residues 4 to 63 of SEQ ID NO:2; and

(d) a protein consisting of amino acid residues 64 to 242 of SEQ ID NO:2;

~~(e) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:2; and~~

~~(f) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2.;~~

wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

48. (previously presented) The antibody or fragment thereof of claim 47 obtained from an animal immunized with protein (a).

49. (previously presented) The antibody or fragment thereof of claim 47 obtained from an animal immunized with protein (b).

50. (previously presented) The antibody or fragment thereof of claim 47 obtained from an animal immunized with protein (c).

51. (previously presented) The antibody or fragment thereof of claim 47 obtained from an animal immunized with protein (d).

52-53. (canceled)

54. (previously presented) The antibody or fragment thereof of claim 47 which is a monoclonal antibody.

55. (previously presented) The antibody or fragment thereof of claim 47 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a polyclonal antibody;

(c) a humanized antibody;

(d) a single chain antibody; and

(e) a Fab fragment.

56. (currently amended) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of amino acid residues -20 to 242 of SEQ ID NO:2;

(b) a protein consisting of amino acid residues 1 to 242 of SEQ ID NO:2;

(c) a protein consisting of amino acid residues 4 to 63 of SEQ ID NO:2; and

(d) a protein consisting of amino acid residues 64 to 242 of SEQ ID NO:2;

~~(e) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:2; and~~

~~(f) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2~~.

57. (previously presented) The antibody or fragment thereof of claim 56 that specifically binds protein (a).

58. (previously presented) The antibody or fragment thereof of claim 56 that specifically binds protein (b).

59. (previously presented) The antibody or fragment thereof of claim 56 that specifically binds protein (c).

60. (previously presented) The antibody or fragment thereof of claim 56 that specifically binds protein (d).

61-62. (canceled)

63. (previously presented) The antibody or fragment thereof of claim 58 that specifically binds protein (c).

64. (previously presented) The antibody or fragment thereof of claim 58 wherein said protein bound by said antibody or fragment thereof is glycosylated.

65. (previously presented) The antibody or fragment thereof of claim 58 which is a human antibody.

66. (previously presented) The antibody or fragment thereof of claim 58 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a humanized antibody;

(c) a single chain antibody; and

(d) a Fab fragment.

67. (previously presented) The antibody or fragment thereof of claim 58 which is labeled.

68. (currently amended) The antibody or fragment thereof of claim 67 wherein the label is selected from the group consisting of:

(a) an enzyme;

(b) a fluorescent label; and

(c) a chemiluminescent label~~; and~~

~~(d) a bioluminescent label~~.

69. (previously presented) The antibody or fragment thereof of claim 67 wherein the label is a radioisotope.

70. (previously presented) The antibody or fragment thereof of claim 69 wherein the radioisotope is selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{14}C;

(d) ^{35}S;

(e) ^{3}H;

(f) ^{111}In; and

(g) ^{99}mTc.

71. (previously presented) The antibody or fragment thereof of claim 67 wherein the label is biotin.

72. (previously presented) The antibody or fragment thereof of claim 58 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

73. (previously presented) The antibody or fragment thereof of claim 58 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

74. (previously presented) The isolated antibody or fragment thereof of claim 58, wherein the antibody or fragment thereof enhances t-PALP biological activity.

75. (currently amended) The antibody or ~~portion~~ fragment thereof of claim 58 which is fused to a heterologous polypeptide.

76. (previously presented) The antibody of claim 58 which is attached to a solid support.

77. (previously presented) An isolated cell that produces the antibody or fragment thereof of claim 58.

78. (previously presented) A hybridoma that produces the antibody or fragment thereof of claim 58.

79. (withdrawn) A method of detecting a protein in a biological sample comprising:

(a) contacting the biological sample with the antibody or fragment thereof of claim 58; and

(b) detecting the protein in the biological sample.

80. (currently amended) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of the full-length polypeptide excepting the N-terminal methionine encoded by the cDNA contained in ATCC Deposit Number 209023;

(b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023;

(c) a protein consisting of the kringle domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023; and

(d) a protein consisting of the protease domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023;

~~(e) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023; and~~

~~(f) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023~~.

81. (previously presented) The antibody or fragment thereof of claim 80 that specifically binds protein (a).

82. (previously presented) The antibody or fragment thereof of claim 80 that specifically binds protein (b).

83. (previously presented) The antibody or fragment thereof of claim 80 that specifically binds protein (c).

84. (previously presented) The antibody or fragment thereof of claim 80 that specifically binds protein (d).

85-86. (canceled)

87. (previously presented) The antibody or fragment thereof of claim 82 that specifically binds protein (c).

88. (previously presented) The antibody or fragment thereof of claim 82 wherein said protein bound by said antibody or fragment thereof is glycosylated.

89. (previously presented) The antibody or fragment thereof of claim 82 which is a human antibody.

90. (previously presented) The antibody or fragment thereof of claim 82 which is a polyclonal antibody.

91. (previously presented) The antibody or fragment thereof of claim 82 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a humanized antibody;

(c) a single chain antibody; and

(d) a Fab fragment.

92. (previously presented) The antibody or fragment thereof of claim 82 which is labeled.

93. (currently amended) The antibody or fragment thereof of claim 92 wherein the label is selected from the group consisting of:

(a) an enzyme;

(b) a fluorescent label; and

(c) a chemiluminescent label~~; and~~

~~(d) a bioluminescent label~~.

94. (previously presented) The antibody or fragment thereof of claim 92 wherein the label is a radioisotope.

95. (previously presented) The antibody or fragment thereof of claim 94 wherein the radioisotope is selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{14}C;

(d) ^{35}S;

(e) ^{3}H;

(f) ^{111}In; and

(g) ^{99}mTc.

96. (previously presented) The antibody or fragment thereof of claim 92 wherein the label is biotin.

97. (previously presented) The antibody or fragment thereof of claim 82 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

98. (previously presented) The antibody or fragment thereof of claim 82 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

99. (previously presented) The isolated antibody or fragment thereof of claim 82, wherein the antibody or fragment thereof enhances t-PALP biological activity.

100. (currently amended) The antibody or ~~portion~~ fragment thereof of claim 82 which is fused to a heterologous polypeptide.

101. (previously presented) The antibody of claim 82 which is attached to a solid support.

102. (previously presented) An isolated cell that produces the antibody or fragment thereof of claim 82.

103. (previously presented) A hybridoma that produces the antibody or fragment thereof of claim 82.

104. (withdrawn) A method of detecting a protein in a biological sample comprising:

(a) contacting the biological sample with the antibody or fragment thereof of claim 82; and

(b) detecting the protein in the biological sample.

105. (withdrawn) The method of claim 104 wherein the antibody or fragment thereof is a polyclonal antibody.

106. (currently amended) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

(a) a protein consisting of the full-length polypeptide excepting the N-terminal methionine encoded by the cDNA contained in ATCC Deposit Number 209023;

(b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023;

(c) a protein consisting of the kringle domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023; and

(d) a protein consisting of the protease domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023;

~~(e) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023; and~~

~~(f) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023;~~

wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

107. (previously presented) The antibody or fragment thereof of claim 106 obtained from an animal immunized with protein (a).

108. (previously presented) The antibody or fragment thereof of claim 106 obtained from an animal immunized with protein (b).

109. (previously presented) The antibody or fragment thereof of claim 106 obtained from an animal immunized with protein (c).

110. (previously presented) The antibody or fragment thereof of claim 106 obtained from an animal immunized with protein (d).

111-112. (canceled)

113. (previously presented) The antibody or fragment thereof of claim 106 which is a monoclonal antibody.

114. (previously presented) The antibody or fragment thereof of claim 106 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a polyclonal antibody;

(c) a humanized antibody;

(d) a single chain antibody; and

(e) a Fab fragment.

115. (currently amended) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of the full-length polypeptide excepting the N-terminal methionine encoded by the cDNA contained in ATCC Deposit Number 209023;

(b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023;

(c) a protein consisting of the kringle domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023; and

(d) a protein consisting of the protease domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023~~;~~

~~(e) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023; and~~

~~(f) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023~~.

116. (previously presented) The antibody or fragment thereof of claim 115 that specifically binds protein (a).

117. (previously presented) The antibody or fragment thereof of claim 115 that specifically binds protein (b).

118. (previously presented) The antibody or fragment thereof of claim 115 that specifically binds protein (c).

119. (previously presented) The antibody or fragment thereof of claim 115 that specifically binds protein (d).

120-121. (canceled)

122. (previously presented) The antibody or fragment thereof of claim 117 that specifically binds protein (b).

123. (previously presented) The antibody or fragment thereof of claim 117 wherein said protein bound by said antibody or fragment thereof is glycosylated.

124. (previously presented) The antibody or fragment thereof of claim 117 which is a human antibody.

125. (previously presented) The antibody or fragment thereof of claim 117 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a humanized antibody;

(c) a single chain antibody; and

(d) a Fab fragment.

126. (previously presented) The antibody or fragment thereof of claim 117 which is labeled.

127. (currently amended) The antibody or fragment thereof of claim 126 wherein the label is selected from the group consisting of:

(a) an enzyme;

(b) a fluorescent label; and

(c) a chemiluminescent label~~; and~~

~~(d) a bioluminescent label~~.

128. (previously presented) The antibody or fragment thereof of claim 126 wherein the label is a radioisotope.

129. (previously presented) The antibody or fragment thereof of claim 128 wherein the radioisotope is selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{14}C;

(d) ^{35}S;

(e) ^{3}H;

(f) ^{111}In; and

(g) ^{99}mTc.

130. (previously presented) The antibody or fragment thereof of claim 126 wherein the label is biotin.

131. (previously presented) The antibody or fragment thereof of claim 117 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

132. (previously presented) The antibody or fragment thereof of claim 117 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

133. (previously presented) The isolated antibody or fragment thereof of claim 117, wherein the antibody or fragment thereof enhances t-PALP biological activity.

134. (currently amended) The antibody or ~~portion~~ fragment thereof of claim 117 which is fused to a heterologous polypeptide.

135. (previously presented) The antibody of claim 117 which is attached to a solid support.

136. (previously presented) An isolated cell that produces the antibody or fragment thereof of claim 117.

137. (previously presented) A hybridoma that produces the antibody or fragment thereof of claim 117.

138. (Withdrawn) A method of detecting a protein in a biological sample comprising:

(a) contacting the biological sample with the antibody or fragment thereof of claim 117; and

(b) detecting the protein in the biological sample.

139. (currently amended) An isolated antibody or fragment thereof that specifically binds a t-PALP protein purified from a cell culture wherein ~~the cells in said cell culture comprise~~ said t-PALP protein is expressed by cells comprising a polynucleotide encoding amino acids 1 to 242 of SEQ ID NO:2 ~~operably associated with a regulatory sequence that controls the expression of said polynucleotide~~.

140. (previously presented) The antibody or fragment thereof of claim 139 which is a monoclonal antibody.

141. (previously presented) The antibody or fragment thereof of claim 139 which is a human antibody.

142. (previously presented) The antibody or fragment thereof of claim 139 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a polyclonal antibody;

(c) a humanized antibody;

(d) a single chain antibody; and

(e) a Fab fragment.

143. (previously presented) The antibody or fragment thereof of claim 139 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

144. (previously presented) The antibody or fragment thereof of claim 139 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

145. (previously presented) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of amino acid residues 1 to 10 of SEQ ID NO:2;

(b) a protein consisting of amino acid residues 14 to 23 of SEQ ID NO:2;

(c) a protein consisting of amino acid residues 50 to 60 of SEQ ID NO:2;

(d) a protein consisting of amino acid residues 70 to 86 of SEQ ID NO:2;

(e) a protein consisting of amino acid residues 98 to 107 of SEQ ID NO:2;

(f) a protein consisting of amino acid residues 117 to 126 of SEQ ID NO:2;

(g) a protein consisting of amino acid residues 134 to 146 of SEQ ID NO:2;

(h) a protein consisting of amino acid residues 172 to 182 of SEQ ID NO:2;

(i) a protein consisting of amino acid residues 185 to 194 of SEQ ID NO:2;

(j) a protein consisting of amino acid residues 206 to 216 of SEQ ID NO:2; and

(k) a protein consisting of amino acid residues 222 to 231 of SEQ ID NO:2.

146. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (a).

147. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (b).

148. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (c).

149. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (d).

150. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (e).

151. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (f).

152. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (g).

153. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (h).

154. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (i).

155. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (j).

156. (previously presented) The antibody or fragment thereof of claim 145 that specifically binds protein (k).

157. (previously presented) The antibody or fragment thereof of claim 145 wherein said protein bound by said antibody or fragment thereof is glycosylated.

158. (previously presented) The antibody or fragment thereof of claim 145 which is a human antibody.

159. (previously presented) The antibody or fragment thereof of claim 145 which is a polyclonal antibody.

160. (previously presented) The antibody or fragment thereof of claim 145 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a humanized antibody;

(c) a single chain antibody; and

(d) a Fab fragment.

161. (previously presented) The antibody or fragment thereof of claim 145 which is labeled.

162. (currently amended) The antibody or fragment thereof of claim 161 wherein the label is selected from the group consisting of:

(a) an enzyme;

(b) a fluorescent label; and

(c) a chemiluminescent label~~; and~~

~~(d) a bioluminescent label~~.

163. (previously presented) The antibody or fragment thereof of claim 161 wherein the label is a radioisotope.

164. (previously presented) The antibody or fragment thereof of claim 163 wherein the radioisotope is selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{14}C;

(d) ^{35}S;

(e) ^{3}H;

(f) ^{111}In; and

(g) ^{99}mTc.

165. (previously presented) The antibody or fragment thereof of claim 161 wherein the label is biotin.

166. (previously presented) The antibody or fragment thereof of claim 145 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

167. (previously presented) The antibody or fragment thereof of claim 145 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

168. (previously presented) An isolated antibody or fragment thereof that binds a protein consisting of amino acid residues 1 to 242 of SEQ ID NO:2 with a dissociation constant (KD) less than or equal to 10^{-8} M.

169. (previously presented) The isolated antibody or fragment thereof of claim 168, wherein the isolated antibody or fragment thereof has a dissociation constant (KD) less than or equal to 10^{-9} M.

170. (previously presented) The isolated antibody or fragment thereof of claim 168, wherein the isolated antibody or fragment thereof has a dissociation constant (KD) less than or equal to 10^{-10} M.

171. (previously presented) The isolated antibody or fragment thereof of claim 168, wherein the isolated antibody or fragment thereof has a dissociation constant (KD) less than or equal to 10^{-11} M.

172. (previously presented) The isolated antibody or fragment thereof of claim 168, wherein the isolated antibody or fragment thereof has a dissociation constant (KD) less than or equal to 10^{-12} M.

173. (previously presented) The antibody or fragment thereof of claim 168 wherein said protein bound by said antibody or fragment thereof is glycosylated.

174. (previously presented) The antibody or fragment thereof of claim 168 which is a human antibody.

175. (previously presented) The antibody or fragment thereof of claim 168 which is a polyclonal antibody.

176. (previously presented) The antibody or fragment thereof of claim 168 which is selected from the group consisting of:

(a) a chimeric antibody;

(b) a humanized antibody;

(c) a single chain antibody; and

(d) a Fab fragment.

177. (previously presented) The antibody or fragment thereof of claim 168 which is labeled.

178. (currently amended) The antibody or fragment thereof of claim 177 wherein the label is selected from the group consisting of:

(a) an enzyme;

(b) a fluorescent label; and

(c) a chemiluminescent label~~; and~~

~~(d) a bioluminescent label~~.

179. (previously presented) The antibody or fragment thereof of claim 177 wherein the label is a radioisotope.

180. (previously presented) The antibody or fragment thereof of claim 179 wherein the radioisotope is selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{14}C;

(d) ^{35}S;

(e) ^{3}H;

(f) ^{111}In; and

(g) ^{99}mTc.

181. (previously presented) The antibody or fragment thereof of claim 177 wherein the label is biotin.

182. (previously presented) The antibody or fragment thereof of claim 168 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

183. (previously presented) The antibody or fragment thereof of claim 168 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

184. (new) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of a portion of SEQ ID NO:2, wherein said portion is at least 30 contiguous amino acid residues in length;

(b) a protein consisting of a portion of SEQ ID NO:2, wherein said portion is at least 50 contiguous amino acid residues in length;

(c) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion is at least 30 contiguous amino acid residues in length; and

(d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion is at least 50 contiguous amino acid residues in length.

185. (new) The antibody or fragment thereof of claim 184 that specifically binds protein (a).

186. (new) The antibody or fragment thereof of claim 184 that specifically binds protein (b).

187. (new) The antibody or fragment thereof of claim 184 that specifically binds protein (c).

188. (new) The antibody or fragment thereof of claim 184 that specifically binds protein (d).

189. (new) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

(a) a protein consisting of a portion of SEQ ID NO:2, wherein said portion is at least 30 contiguous amino acid residues in length;

(b) a protein consisting of a portion of SEQ ID NO:2, wherein said portion is at least 50 contiguous amino acid residues in length;

(c) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion is at least 30 contiguous amino acid residues in length; and

(d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion is at least 50 contiguous amino acid residues in length;

wherein said antibody or fragment thereof specifically binds to said amino acid residues.

190. (new) The antibody or fragment thereof of claim 189 obtained from an animal immunized with protein (a).

191. (new) The antibody or fragment thereof of claim 189 obtained from an animal immunized with protein (b).

192. (new) The antibody or fragment thereof of claim 189 obtained from an animal immunized with protein (c).

193. (new) The antibody or fragment thereof of claim 189 obtained from an animal immunized with protein (d).

194. (new) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of a portion of SEQ ID NO:2, wherein said portion is at least 30 contiguous amino acid residues in length;

(b) a protein consisting of a portion of SEQ ID NO:2, wherein said portion is at least 50 contiguous amino acid residues in length;

(c) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion is at least 30 contiguous amino acid residues in length; and

(d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209023, wherein said portion is at least 50 contiguous amino acid residues in length.

195. (new) The antibody or fragment thereof of claim 194 that specifically binds protein (a).

196. (new) The antibody or fragment thereof of claim 194 that specifically binds protein (b).

197. (new) The antibody or fragment thereof of claim 194 that specifically binds protein (c).

198. (new) The antibody or fragment thereof of claim 194 that specifically binds protein (d).